

Safety relief valve, spring-loaded

33503/33603

Description

Safety relief valves are used in the beverage and food processing industries, as well as in the chemical-pharmaceutical industry.

Safety relief valves:

- protection of pressurized systems against overpressure
- subject to the Pressure Equipment Directive 2014/68/EU
- may be used for the intensified purpose only
- fulfil the requirements of AD 2000/ A2 and DIN EN ISO 4126-1
- regarding their construction and opening behavior, they are direct acting „normal safety valves“ with full-lifting character

Valve types

Type	Fluids	Lifting manual	Liftung pneumatic	Seals EPDM / FKM	Proximity switch	Heating cartridge
33503	F/G/D	X		X / ⊗	(⊗)	⊗
33603	F/G/D		X	X / ⊗	⊗	⊗

Liquids (F), Air/Gases (G), Steam (D)

⊗ optional

Valve data

Type	Safety relief valve
Type of functioning	Opens with pressure/closes with spring force
Order code	335xx/336xx

Product range

Materials	Stainless steel 1.4404
Seals	EPDM, optionally FKM/FPM (all FDA proof)
Surface	≤ 0.8 μm

Other parts

Materials	Stainless steel 1.4301, 1.4307
Seals	EPDM
Surface	Precision-turned, matte

Production / CIP

Applications	Free exit
Fluids (nontoxic)	Fluids/gases/steam (Group II, PED 2014/68/EU) Readily commercially-available CIP cleaning media with 2-4 % lye/acid
Performance data	Performance data within 10 % pressure increase
Operating pressure	PS min/max 0/10 bar-g
Temperature	TS min/max -20/160 °C
Control air pressure	5 – 7 bar, compressed air connection Ø 6/4 mm

CE 0062



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Valve construction

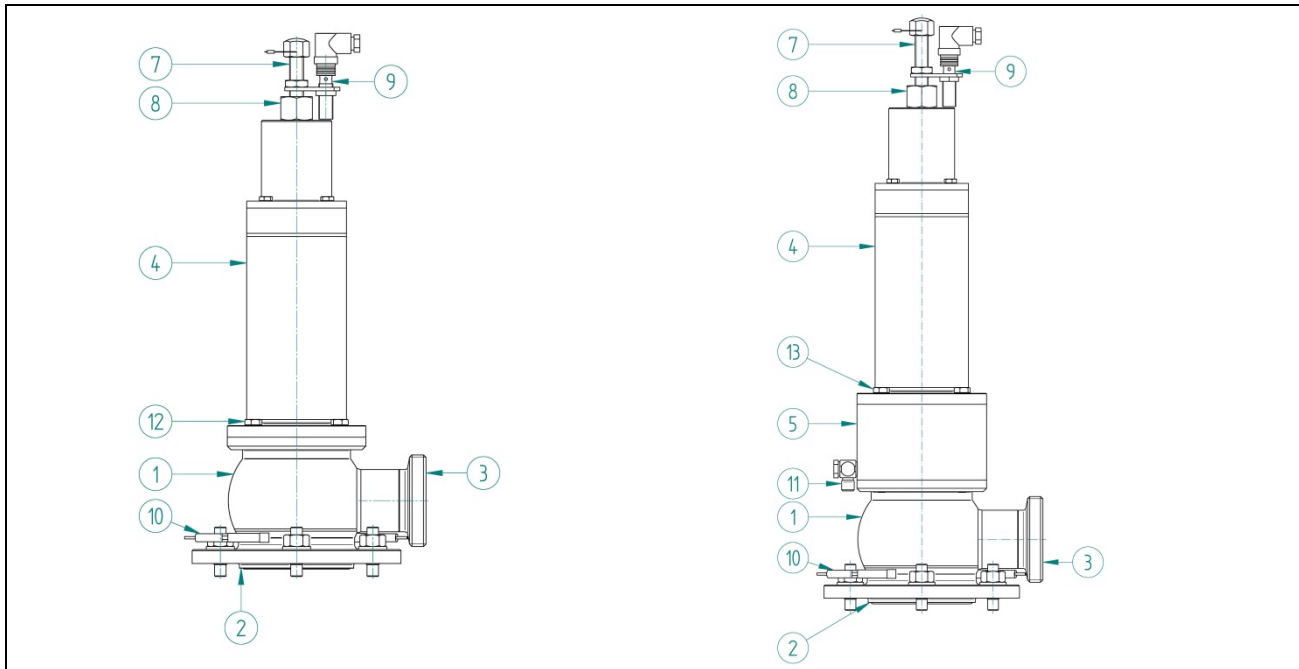


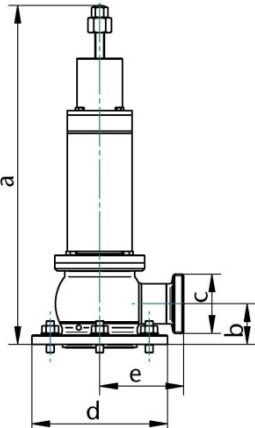
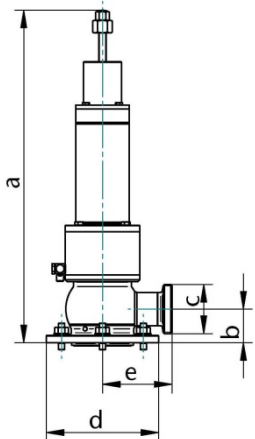
Fig. 1: Type 33503 und 33603

1	valve housing	8	lifting nut
2	valve inlet [E] – supply pipe	9	proximity switch
3	valve outlet [A] – discharge pipe	10	heating cartridge
4	upper valve body	11	compressed air connection
5	pneumatic actuator	12	screws, upper body
7	valve rod	13	screws, actuator

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Dimensions

AH-SV-33503	DN [E]	DN [A]	a [mm]	b [mm]	c [Rd.Gew]	d Ø	weight [kg]
	40	50	447	54	78 x1/6"	178	9,4
	50	65	531	59	95 x1/6"	196	13,5
	65	80	547	68	110 x1/4"	228	15,1
	80	100	565	77	130 x1/4"	248	21,7
	80	100	621	77	130 x1/4"	248	21,7
	valve lift: max. 25 mm						
AH-SV-33603	DN [E]	DN [A]	a [mm]	b [mm]	c [Rd.Gew]	d Ø	weight [kg]
	40	50	528	54	78 x1/6"	178	15,4
	50	65	586	59	95 x1/6"	196	21,3
	65	80	605	67	110 x1/4"	228	23,0
	80	100	626	77	130 x1/4"	248	28,4
	80	100	681	77	130 x1/4"	248	28,4
	valve lift: max. 25 mm e: compressed air connection Ø: 6/4 mm						

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Performance data

Fluid: water				
33503/33603				
	throughput [Nm ³ /h]			
pressure [bar-g]	DN 40	DN 50	DN 65	DN 80
1	736	1.067	1.911	3.035
2	1.119	1.622	2.906	4.615
3	1.502	2.178	3.900	6.195
4	1.885	2.733	4.895	7.775
5	2.268	3.288	5.890	9.355
6	2.651	3.844	4.094	10.935
7	3.034	4.399	4.685	7.196
8	3.417	4.954	5.276	8.105
9	3.800	5.510	5.868	9.013
10	4.183	6.065	6.459	9.922

Fluid: air				
33503/33603				
	throughput [kg/h]			
pressure [bar-g]	DN 40	DN 50	DN 65	DN 80
1	26.460	42.930	65.670	107.240
2	37.420	60.720	92.910	151.670
3	45.830	74.360	113.790	167.180
4	52.920	85.870	131.400	193.040
5	59.170	96.000	146.900	215.830
6	64.800	105.170	160.930	236.430
7	70.000	113.590	173.820	255.370
8	74.840	121.440	185.820	273.000
9	79.380	128.800	197.100	289.570
10	83.670	135.770	207.760	305.230

Fluid: steam				
33503/33603				
	throughput [kg/h]			
pressure [bar-g]	DN 40	DN 50	DN 65	DN 80
1	496	719	1.287	2.045
2	753	1.093	1.958	3.109
3	1.012	1.467	2.627	4.173
4	1.270	1.841	3.298	5.237